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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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LAW OFFICES OF JAMES E. WALTON, PLLC
1169 N. BURLESON BLVD.
SUITE 107-328
BURLESON, TX 76028

EXAMINER

SAWHNEY, HARGOBIND S

ART UNIT

PAPER NUMBER

2885

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12/15/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/650,537

Applicant(s)

KUELBS, GREGORY G.

Examiner

HARGOBIND S. SAWHNEY

Art Unit

2885

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 September 2008.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 76-92 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 76-92 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/ISD)
Paper No(s)/Mail Date 9/24/2008
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

1. The Request for Continued Examination –RCE- and the amendment, each filed on September 18, 2008 has been entered. According to the amendment, claims 76 and 86 have been amended; and claims 1-75 have been cancelled.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 76-81 and 83 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No.: 2,960,094 (Small) in view of US Patent NO.: 5,954,417 (Mai).

Regarding claims 76, Small discloses umbrella apparatus (Figure 1) comprising:

- A pole portion 10 for outdoor location (Figure 1, column 1, lines 16 and 47); an umbrella portion 11 hingedly coupled to a pole portion 10 (Figure 1, column 1, line 49); the umbrella apportion including radially extending ribs 11' (numeral assigned by the examiner for brevity of the discussion) - including elements 12 and other stretching rib members (not shown) – starching the top 11 (Figure 1, column 1, lines 47-50); a rechargeable electrical power system 35 providing power to the umbrella apparatus (Figure 1, column 2, lines 29 and 30); a solar energy system 34 including

a solar collector positioned above the umbrella portion 11 (Figure 1, column2, lines 29-36); the electrical energy converted by the solar energy system conductively coupled to , and recharging the rechargeable electrical power system 35 (Figure 1, column2, lines 29-36); Positioning of the solar collector of the solar energy system 34 keeping the degree of exposure unaffected from opening and closing of the umbrella apparatus (Figure 1).

However, Small does not specifically teach the solar- powered umbrella apparatus further comprising a lighting system including a plurality of light emitting diodes "LEDs" conductively coupled to the rechargeable power system included in the umbrella apparatus.

On the other hand, Mai discloses an umbrella apparatus (Figure 1) comprising:

- An umbrella portion 3 coupled to a pole 10 (Figure 1, column 2, lines 42-46); a lighting system 80" including lighting elements LEDs 83" conductively coupled to a rechargeable system 35 through wires 831" (Figures 1 and 5, column 3, lines 4-10; and column 4, lines 4-6); the LEDs 83" being recessed within the transparent rib portion 84" – transparent strips integral with the ribs have been interpreted as the rib portions- covering the LEDs 83" (Figure 5, column 4 lines 11-19).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the solar-powered umbrella apparatus of Small by providing the LED-based lighting system as taught by Mai for the benefits enhancing utility of

umbrella apparatus by illuminating the area under the umbrella canopy portion.

Further, Small in view of Mai teaches the material covering the LEDs being transparent instead of being translucent as claimed by the applicant.

It would be have been obvious to one of ordinary skill in the art at the time of the invention to provide translucent finish to the light transmitting covering, since it has been held that matters relating to ornamentation only which has no mechanical function cannot be relied upon to patentably distinguish the claimed invention over prior art.

Regarding claims 77, 78, Small in view of Mai teaches the LED covering material being translucent as applied to claim 76 discussed above. However, neither in combination nor individually Small and Mai specifically teaches the translucent material being smooth or textured. The above surface characteristics are considered as ornamental features not affecting mechanical function of the device.

It would be have been obvious to one of ordinary skill in the art at the time of the invention to provide translucent surface with either smooth or textured surface finish to the light transmitting covering, since it has been held that matters relating to ornamentation only which has no mechanical function cannot be relied upon to patentably distinguish the claimed invention over prior art.

Regarding claim 79 and 80, Small in view of Mai further teaches the translucent material 84" extending beyond – width of the covering material being wider than that of the ribs (Figure 5) - the exterior surfaces of the rib members (Figure 5), and the conductors 831" being carried – covered along with the LEDs 83"- within the rib portion 84" (Mai, Figure 5, column 4, lines 14-18).

Regarding claim 81, Small in view of Mai teaches the solar energy system being operationally coupled to the rechargeable electrical power system, However, neither in combination nor individually Small and Mai specifically teach the solar energy system being releasably coupled to the rechargeable electrical power system.

It would be have been obvious to one of ordinary skill in the art at the time of the invention to make the solar energy system of Small in view of Mai releasable or detachably attached to the electrical power system, since it has been held that making a component removable is a merely a matter obvious engineering choice, and involves only routine skill in the art. USPQ 348, 349 (CCPA 1961). Further, using a solar energy system, which is detachable from the rechargeable electrical power system, would facilitate repair, replacement or maintenance of the umbrella apparatus.

Regarding claim 83, Small in view of Mai discloses the umbrella apparatus further comprising the solar energy system 34 and rechargeable electric power system being disposed n separate housings (Figure 1, column 2, lines 30-36).

4. Claim 82 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No.: 2,960,094 (Small) in view of US Patent NO.: 5,954,417 (Mai) as applied to claim 76 above, and further in view of US Patent 2,863,466 (Small '466).

Regarding claim 82, Small in view of Mai discloses the outdoor umbrella apparatus including: a top housing receiving the solar energy system 35– broadly interpreted as a cap - and a rechargeable battery 35 – broadly interpreted as a rechargeable electrical power system - positioned adjacent the solar energy system 34 (Small, Figure 1).

Small further teaches that the rechargeable batteries may be positioned anywhere, including external or internal of the post 10 (Small, Figure 1, column 2, lines 28-36). However, Small does not specifically teach: the top cap used to hingedly connecting the umbrella portion to the pole portion; and the rechargeable electrical power system received in the top cap portion.

On the other hand Small '466 discloses an umbrella apparatus (Figure 1) including an umbrella portion – canopy - (not shown) supported by a plurality of ribs each connected to a top cap 27 for hingedly connecting the umbrella portion to the pole 28 (Figure 1, column 2, lines 20-29).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to further modify the umbrella apparatus of Small in view of Mia by positioning the rechargeable batteries within the housing receiving the solar energy system, since it has been held that rearranging parts of a prior art structure involves only routing skill in the art. *In re Japikse*, 86 USPQ 70. Further, positioning of rechargeable power sources – batteries – within the housing receiving a solar energy system would operate equally well, and would be compact with less wiring.

5. Claim 84 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No.: 2,960,094 (Small) in view of US Patent NO.: 5,954,417 (Mai) as applied to claim 76 above, and further in view of US Patent 5,584,564 (Phyle).

Regarding claim 84, Small in view of Mai discloses the outdoor umbrella comprising a rechargeable battery disposed in a housing mounted on the umbrella pole as applied to claim 76 discussed in section 3 above. However neither Small nor Mai

specifically teaches the battery housing surrounding the umbrella pole as claimed by the applicant.

On the other hand, Phyle discloses an outdoor umbrella (Figures 9 and 10) comprising: batteries 60 received in a housing 10; and the housing 10 surrounding the umbrella pole 20 (Figures 9 and 10, column 3, lines 58-67; and column 4, lines 1-7).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to further modify the umbrella apparatus of Small in view of Mia by positioning the rechargeable batteries within the housing surrounding the umbrella pole as taught by Phyle for the benefits of mounting the housing with no interfere with the vertical motion of the umbrella slide, and fir easy excess for replacements of batteries.

6. Claims 85 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No.: 2,960,094 (Small) in view of US Patent NO.: 5,954,417 (Mai) and US Patent 5,584,564 (Phyle) as applied to claim 84 above, and further in view of WIPO publication WO 93/00840 (Perrier et al.).

The following examination is based on the English translation of Perrier et al. Hereafter, the above-indicated English translation has been referred as "the English translated text".

Regarding claim 85, Small in view of Mai and Phyle discloses the umbrella apparatus including a rechargeable electric power system charged with a solar energy system as applied to claim 84 discussed in section 5 above. However, neither in combination nor individually, Small, Mai and Phyle teaches AC-based rechargeable

power system conductively coupled to at least one rechargeable battery receive power from an AC power outlet.

On the other hand, Perrier et al. discloses an outdoor umbrella apparatus (Figure 1) comprising:

- A lighting powered with an electric power system via the electrical cable holder 17 connectable to electrical power system 3 – including batteries 3 – rechargeable with a solar energy system 2 – operationally a transformer is a part of the battery-charger connected to the rechargeable battery- (Figure 1, English translated abstract and text).

Further, Perrier et al. teaches the umbrella apparatus including the rechargeable electrical power system capable of receiving power from an AC power outlet through a power plug 14 (Figure 1, English translated abstract and text).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to further modify the outdoor umbrella apparatus of Small in view of Mai and Phyle by providing the rechargeable power system – operationally equipped with a transformer - receiving power from the AC power outlet as taught by Perrier et al. for the benefits of redundant power sources desirable for high operational reliability and availability of the umbrella apparatus.

Further, neither in combination nor individually Small, Mai, Phyle and Perrier specifically teaches the transformer equipped with the recharging system is releasably coupled to the power system charger.

It would be have been obvious to one of ordinary skill in the art at the time of the invention to further modify the outdoor umbrella apparatus of Small in view of Mai and Phyle by providing the rechargeable power system – operationally equipped with a releasable transformer, since, it has been held that constructing a formerly integral structure in various separable elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179.

7. Claims 86-89 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent No. JP 9168415 (Oshio) in view of US Patent No.: 2,960,094 (Small).

The following examination is based on the English translation provided by the Advanced Industrial Property Network (AIPN) of the Japanese Patent Office. Hereafter, the above-indicated English translation has been referred as “Oshio”.

Regarding claim 86, Oshio discloses an umbrella apparatus (Figures 1 and 3) comprising:

- A top cap 12 coupled to a pole 4 (English translated Oshio, Figures 2a and 3b); a plurality of ribs 3 hingedly coupled to the top cap 12 (English translated Oshio, Figures 2a and 3b); a flexible canopy 2carried by the ribs 2 (English translated Oshio, Figures 2a and 3b); power supply batteries 8 energizing the umbrellas apparatus (English translated Oshio, Figures 2a and 3b) the power supply batteries positioned below the canopy (English translated Oshio, Figures 2a and 3b); a lighting system electrically powered lighting elements LEDs 7a1-7a6, 7b1-7b6 7c6 –

carried by the ribs 3, and conductively coupled to and powered by the power system 8 (English translated Oshio, Figures 2a and 3b).

Oshio teaches the power system including a battery – a power system - instead of a rechargeable power system as claimed by the applicant.

On the other hand, Small discloses an umbrella apparatus (Figure 1) comprising: a flexible canopy 1 being adjacent to the top and the solar energy system 34 (Small, Figure 1); a rechargeable electrical power system 35 rechargeable by a solar energy system 34 – operationally required to include a battery charger - (Small, Figures 1 and 3, column 2, lines 28-31 and 54-64).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the outdoor umbrella apparatus of Oshio by providing and positioning the rechargeable electrical power system operationally coupled with a solar energy system as taught by Small for the benefits of cost saving resulting from: the least- cost solar energy, longer operational life of batteries, and high operational reliability of the umbrella apparatus.

Regarding claims 87 and 89, Oshio in view of Small discloses the umbrella apparatus additionally including:

- Wiring 9 passing through the interior portion of the pole 4 for conductively coupling light emitting diodes – LEDs-, included in the lighting system, to the rechargeable batteries (English translated Oshio, Figures 2a, 3b and 4); and

- The LEDs 7s positioned in recessed channel in the rib members 3
(English translated Oshio, Figures 2a, 3b and 4).

Regarding claim 88, neither in combination nor individually Oshio and Small does not specifically teach solar energy system being releasably coupled to top cap via threaded connection.

It would be have been obvious to one of ordinary skill in the art at the time of the invention to further modify the outdoor umbrella apparatus of Oshio in view of Small by providing the solar energy system releasably coupled to the top cape with a threaded connection, it has been held that constructing a formerly integral structure in various separable elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179. Mounting of a solar energy system in releasable manner would promote cost effective replacement and maintenance of the device.

8. Claims 90-92 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent No. JP 9168415 (Oshio) in view of US Patent No.: 2,960,094 (Small) as applied to Claim 86 above, and further in view of Wilson (US Patent No.; 6,058,951) and Doublet (US Patent No. US 5,373,287).

Regarding claims 90 and 91, Oshio in view of Small discloses the outdoor umbrella apparatus comprising a manually operable switch 10 (English translated Oshio, Figures 2a, 3b and 4) actuating the lighting system. However, neither in combination nor individually Small and Mai teaches the switch being remotely controllable with signals sent from a wireless transmitter to a receiver.

On the other hand, Wilson ('951) discloses a remote-controlled, outdoor umbrella

apparatus (Figure 1) including: an electric motor 1 for opening and closing the umbrella (Figure 1, column 2, lines 30-41); cut-off switches 12 and 13 cutting off the power to the electrical motor operationally coupled to the umbrella actuators 5 and 15 (Figure 1, column 3, lines 5-9); the switches 12 and 13 remotely controlled by signals sent from a central control locations (Figure 1, column 1, lines 23-32).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to further modify the umbrella apparatus of Oshio in view of Small by providing remote control system as taught by Wilson ('951) for the benefits of actuating the lighting system remotely in response to weather changes.

Further, neither combined nor individual teaching of Oshio, Small and Wilson ('951) teaches the outdoor, remotely controlled, electrically powered umbrella apparatus, as discussed above, further including a remote control system operable with signals sent from a wireless transmitter to a receiver.

On the other hand, Doublet ('287) discloses a remote control system including a receiver 25 positioned the housing of an apparatus, and a wireless transmitter 9 held by the operator (Figures 1 and 2, column 3, lines 40-53).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to further modify the umbrella apparatus of Oshio in view of Small and Wilson) by providing remote control system with wireless transmitter and a receiver as taught by Doublet ('287) for the benefits of actuating the lighting system remotely in response to weather changes.

Regarding claim 92, Oshio in view of Small, Wilson and Doublet discloses the umbrella

apparatus further comprising:

The wireless command signal switching the light system- with elements LEDs 7a1-7a6, 7b1-7b6 7c6 –between varying levels of light output with light output varying circuit 11 (English translated Oshio, Figures 2a and 3b).

Response to Amendment

9. Applicant's arguments filed on December 10, 2007 with respect to the 35 U.S.C. 103(a) rejections of claims 21-25, 30, 33 and 70-75; and the obvious-type double patenting rejections of claims 21, 22, 24, 25 and 30 have been fully considered but they are not persuasive.

Argument: Regarding independent claims 76-81 and 83, Small '094 discloses an umbrella including a conventional collapsible top, the reference Small 094 does not teach the top utilizing any ribs identified with numeral 11', and carrying lighting elements. Therefore rejections of the above indicated claims are improper.

Response: As discussed in section 3 above, the numeral 11' has been assigned by the examiner for the following combination for brevity of the discussion.

- The combination rib member 12 and other rib member stretching rib members (not shown) stretching the top 11 (Figure 1, column 1, lines 47-50)

A conventional collapsible umbrella would require radially extending ribs enabling its canopy stretchable.

Argument: The examiner's interpretation of the transparent cover 84 affixed to the cover 3 of Mai with the claimed translucent materials disposed over the light emitting diodes is not acceptable to the applicant

Response: As discussed in section 3 above, Small in view of Mai teaches the material covering the LEDs being transparent instead of being translucent as claimed by the applicant.

It would be have been obvious to one of ordinary skill in the art at the time of the invention to provide translucent finish to the light transmitting covering, since it has been held that matters relating to ornamentation only which has no mechanical function cannot be relied upon to patentably distinguish the claimed invention over prior art.

Argument: Regarding claim 82, the reference Small '466 is not even about a solar umbrella, and further it completely devoid of any mention of releasably coupling the crown to a rechargeable power source. Thus, the applicant submits that none of the references alone or in combination discloses the claimed invention.

Response: As discussed in section 3 above, Small '466 discloses an umbrella comprising an umbrella portion – canopy - (not shown)

supported by a plurality of ribs each connected to a top cap 27 for hingedly connecting the umbrella portion to the pole 28 (Figure 1, column 2, lines 20-29). The umbrella apparatus of Small has been modified with the above indicated teaching of Small '466.

As discussed above, the combined teaching of the primary Small and the secondary reference Small '466 meets the respective limitation of claim 82.

The secondary references need not be teaching all the features of the pending claims. The prior art reference is analogous, and is in the field of applicant's endeavor. Further, the reference is reasonably pertinent to the particular problem.

One cannot show nonobviousness by attacking references individually, if the limitations are met with combination of references.

Argument: Regarding claim 84, the reference Phyle is even not about a solar umbrella, and further it completely devoid of any mention of disposing a solar rechargeable electrical power source about the pole.

Further the reference Perrier does not include a detachable transformer for converting AC to DC electrical power.

Thus, the applicant submits that none of the references alone or in combination discloses the claimed invention.

Response: As discussed in section 5 above, the primary reference Small in view of the first secondary reference Mai discloses an umbrella comprising a rechargeable battery disposed in a housing mounted on the umbrella pole as applied to claim 76. However neither Small nor Mai specifically teaches the battery housing surrounding the umbrella pole as claimed by the applicant.

On the other hand, Phyle discloses an outdoor umbrella (Figures 9 and 10) comprising: batteries 60 received in a housing 10; and the housing 10 surrounding the umbrella pole 20 (Figures 9 and 10, column 3, lines 58-67; and column 4, lines 1-7).

As discussed above, the combined teaching of the primary Small and the secondary references Small '466 and Phyle meets the respective limitation of claim 84.

The secondary references need not be teaching all the features of the pending claims. The prior art reference is analogous, and is in the field of applicant's endeavor. Further, the reference is reasonably pertinent to the particular problem.

One cannot show nonobviousness by attacking references individually, if the limitations are met with combination of references.

The above response is also applicable for the prior reference Perrier.

Argument: Regarding claim 86, the reference Phyle is not even about a solar umbrella, and further it completely devoid of any mention of disposing a solar rechargeable electrical power source about the pole. Further the reference Perrier does not include a detachable transformer for converting AC to DC electrical power.

Thus, the applicant submits that none of the references alone or in combination discloses the claimed invention.

Response: The response applied to the argument respective to claim 84 is basically applicable for the above arguments.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hargobind S Sawhney whose telephone number is 571 272 2380. The examiner can normally be reached on 8:30 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Jong-Suk (James) Lee can be reached on 571 272 7044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

12/12/2008

/Hargobind S Sawhney/
Primary Examiner, Art Unit 2885